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To Alan Altur	From S. Mrkvicka
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July 31, 1992

Mr. William Ives
B&V Waste Science and Technology Corp.
101 North Wacker Drive, Suite 1100
Chicago, Illinois 60606

Subject: **DESA Industries Property**
Park Forest, Illinois
Delta No. 15-92-019.30

Dear Mr. Ives:

Thank you for speaking with me on July 14, 1992 regarding the above referenced property. As we discussed, Delta Environmental Consultants, Inc. (Delta) has been retained by DESA Industries (DESA) to review prior environmental assessment activities and advise DESA on future activities, such as the proposed Expanded Site Investigation (ESI).

An initial step in the ESI process is the review of background information contained in previous documents, confirming this information and recording observable data missing in previous documents. This letter outlines errors, deficiencies, and inconsistencies noted during a review of the report titled, *Screening Site Inspection Report; for Continental Midland-AMCA International; Park Forest, Illinois; U.S. EPA ID: ILD051069854; SS ID: None; TDD F05-8911-066; PAN: FIL0265SA* (E&E report), dated May 23, 1991, and prepared by Ecology and Environment, Inc. (E&E) in Chicago, Illinois. Please refer to the letter addressed to Mr. Alan Altur of U.S. EPA Region V, dated July 7, 1992 and written by Mr. Thomas Hoban, attorney for DESA, for a description of the many factual and historical inaccuracies portrayed in the E&E report. The balance of this letter will address the technical deficiencies and obvious report errors noted during review of the E&E report.

Data Collection Deficiencies

E&E's FIT group conducted field activities associated with the Screening Site Inspection (SSI) on June 4 and 5, 1990. At that time DESA had retained ERM-North Central, Inc. (ERM) in Deerfield, Illinois, to document E&E SSI activities, questions FIT group members, and observe soil and ground water sampling techniques. ERM noted a number of inconsistencies and/or inappropriate sampling procedures as outlined below.

Soil Sampling

- Soil sampling equipment consisted of a shovel, a post-hole digger, and a garden trowel. None of this equipment was manufactured of stainless steel, therefore metals such as chromium and nickel could have been introduced to the sample(s).

- Soil samples were placed in a large stainless steel bowl for compositing. It was observed that samples were not mixed thoroughly and the sampler would collect samples from different potions of the bowl and place them in the sampling containers. Due to this inconsistent sampling technique, some sample results may be biased.

- Equipment used to decontaminate sampling equipment consisted of two (2) galvanized steel tubs filled with distilled water with Alkonox soap added to one of the tubs. This method of decontamination could potentially introduce trace levels of metals contamination (zinc from galvanizing) to samples collected.

- At several soil sampling locations, the FIT team leader used a large, black, permanent marking pen. The odor was noticeable, and volatile organic compounds (VOC) from the pen may have been introduced into the samples.

- Several different field personnel were involved in soil sampling. As a result, sample collection methods and tool usage were not consistent.

- Once composite samples were placed in sample containers, they were allowed to remain in the sun for a period of time prior to placement in a cooler with ice. An example is sample S1 which was collected at 1410 and finally placed in a cooler at 1800. During this time, potential VOCs in the sample would have collected in the open spaces within the container, increasing the potential for release prior to analyses. Heat and sunlight could potentially alter the chemical composition of compounds originally present in the sample.

Ground Water Measurements and Sampling

- A steel tape coated with chalk was utilized to obtain water levels and total depths at each monitoring well. This is an accepted method for water level measurement, however, the tape was visually rusted and could potentially contribute to elevated metals detection in the sample.

- Two monitoring wells (MW-1 and MW-2) were purged on June 4 and sampled on June 5, while the remaining two wells (MW-3 and MW-6) were purged and sampled on the same day. To provide truly consistent sampling results, the time lag between purging and sampling of the wells should be more consistent.

- Ground water samples were not cooled immediately following sample collection. Samples were allowed to warm in ambient conditions for several hours prior to packing for shipment to the laboratory. This procedure increases the temperature of the sample and thus, the vapor pressure of volatile contaminants causing them to volatilize out of solution.

- The ground water sample collected from MW-6 contained a significant amount of gray silt, possibly indicating that not enough water was purged from the well prior to sample collection. No verbal recognition of this fact was made by the FIT group. The silt in the sample may have also biased analytical results.

- The field blank sample consisted of distilled water poured into a previously unused stainless steel bailer. This sample is not representative of the sampling equipment decontamination procedure.

E&E Report Deficiencies

Following a review of ERM's SSI Oversight report and other historic property data, several deficiencies, inconsistencies, and errors were noted in the E&E Report. They are summarized as follows:

- E&E referenced a report prepared by ERM titled *Remedial Investigation Program for DESA Industries; Park Forest, Illinois; Phase I Final Report, Volume 1*, dated November 4, 1986 (RI report). E&E utilized the site map from the RI report to prepare various figures for the E&E report. Several items on the E&E report figures are misrepresented. A copy of the RI report is enclosed for reference.

  - The storm water drainage ditch from the parking lot on E&E figures was mistakenly drawn in the location of an arrow used on ERM's figures. The actual location of the drainage ditch runs parallel to the roadway north of the main manufacturing building (see Figure 1.3, RI report).

  - The Imhoff tank located in the west area of the property was mistakenly labeled "runoff tank" on the E&E site map (Figure 3-1).

  - Monitoring wells on Figure 3-3 are not labeled correctly. MW-4, as depicted, should be MW-6. Also, Figure 3-3 depicts a "MW-5". This well was never installed and therefore does not exist. A soil boring was however installed at this location and properly abandoned following nondetectable PID headspace readings of soil samples collected to depth.

- The E&E report stated that monitoring wells MW-1, 2, 3, 5 were sampled during SSI activities. Since MW-5 does not exist, it is believed that the wells truly sampled were MW-1, 2, 3, and 6, based on supplementary data evaluation contained in the report.

- ERM installed the ground water monitoring wells at this location in June 1988. Details of this work are summarized in a report titled *Report on Installation of Ground Water Monitoring Wells; DESA Industries; Park Forest, Illinois*, dated January 1989 (Monitoring Well report). The report contains results of soil and ground water sampling, boring logs, and monitoring well construction forms. Although not included in the E&E report "References" section, it is assumed E&E had access to the Monitoring Well report since the boring logs are included as part of an appendix to the E&E report. A copy of this report is enclosed for reference.

  Table 3-1 in the E&E report lists total well depths and depth to ground water as supposedly measured by the FIT team during SSI activities. Oddly, these measurements correspond exactly to measurements collected by ERM personnel in June 1988 (Table 4, Monitoring Well report). Seasonal variations in the ground water table elevation make duplicate ground water level measurements in the same well an infrequent occurrence, and duplicate measurements in the same

set of wells is an even more infrequent occurrence. In addition, Table 3-1 in the E&E report does not reference from where the "Depth to Water" measurement was taken.

- Included in section 4 of the E&E report are two summary tables (Table 4-1 and 4-2) containing soil and ground water analytical results. The actual analytical reports are not included as an appendix to the report. The analytical data presented on summary tables are blanketed with data qualifiers relating to the EPA's Contract Laboratory Program (CLP); the definitions and interpretations of which are vague at best. Much of the data is described as "semi-quantitative", which raises questions regarding the validity of the data in the eyes of the report reviewer. Many of the qualifiers reference spike results and laboratory narrative, neither of which are included as part of the report.

  In addition, these monitoring wells were sampled by ERM in June 1988. Analytical parameters included VOCs, total metals, and PCBs. Analytical results are included on Table 5 of the Monitoring Well report. All samples were non-detect for VOCs and contained detectable concentrations of oil & grease and magnesium. PCBs were detected in one sample collected from MW-3 at 4.8 micrograms per liter (ug/l). This well was subsequently resampled in November 1988, the results of which showed nondetectable levels of PCBs. No mention of this prior sampling event was mentioned in the E&E report.

- A contradiction in property description was noted in the report. On page 3-2 of the report, the property was described as, "...consists of barren ground with occasional patches of vegetation." On page 5-4, the property is described as. "A few barren areas of soil were observed at the site, but the majority of the site was covered either with vegetation or by buildings and parking lots."

- Upon review of the E&E report signature page, it is evident that no member of the original FIT group was involved in report preparation or review. This would explain why many of the above referenced obvious errors were published in the final E&E report and raises concerns as to the accuracy of the property description.

- It appears that although E&E had access to prior ERM reports such as the RI report and the Monitoring Well report, E&E was selective as to which information they chose to include in the E&E report and which to ignore. No mention of the remedial investigation activities and results and/or the monitoring well installation and sampling were made in the E&E report, some of which are listed below.

  - No mention of the original 1980 joint inspection by the Illinois Environmental Protection Agency (IEPA) and U.S. EPA which resulted in a "no further administrative action" decision.

  - There are three (3) water supply wells on the property; two of which service the manufacturing operation, and one of which services a residential unit north of the plant. These wells were sampled and as part of ERM's remedial investigation activities. The list of analytes included VOCs, total metals, and PCBs. All constituents were below detection limits and/or below drinking water standards.

Based on the above referenced findings, DESA is extremely concerned with the accuracy of potential additional property inspection activities which may rely on the E&E report for background data. Also, DESA believes it is critical that its representatives are involved in the ESI process, such that any questions or misrepresentations can be handled expediently and cost effectively, prior to being published and accepted as an actuality.

In order to advance this project in as accurate a fashion as possible, DESA will share with B&V its past inspection reports and sampling results. Mr. Hoban will be contacting you next week to determine which material B&V has in its files and what information DESA might provide.

Please review this information and contact me at (414)789-0254 if you have any questions.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Joyce Linck
Project Manager/Civil Engineer

Enclosures

w/o enclosures: John Burtis, UDI
Tom Hoban